

## CLAIMS

What is claimed is:

1. A method of therapeutically treating a patient having a symptom of cardiovascular disease, said method comprising the steps of:

(a) providing a patient having a symptom of cardiovascular disease; and

(b) administering to said patient a therapeutic amount of an immunogenic composition comprising an immunogenically effective portion of *Porphyromonas gingivalis* in a pharmaceutically effective carrier substance.

2. A method of prophylactically treating a patient having a risk factor for cardiovascular disease, said method comprising the steps of:

(a) providing a patient having a risk factor for cardiovascular disease; and

(b) administering to said patient a prophylactic amount of an immunogenic composition comprising an immunogenically effective portion of *Porphyromonas gingivalis* in a pharmaceutically effective carrier substance.

3. The method of claim 1 or claim 2, wherein said immunogenically effective portion of *Porphyromonas gingivalis* is selected from the group consisting of *P. gingivalis* heat-killed whole cells; an immunogenically effective portion of *P. gingivalis* capsular polysaccharide; and an immunogenic composition comprising at least one peptide corresponding in sequence to the amino terminus of at least one arginine-specific proteinase derived from *P. gingivalis*.

4. The method of claim 1, wherein said symptom of cardiovascular disease is an elevated level of C-reactive protein.

5 5. The method of claim 1, wherein said symptom of cardiovascular disease is atherosclerosis in said patient.

6. The method of claim 1, wherein said patient has atheroma formation in the aortic arch.

10 7. The method of claim 2, wherein said patient furthermore shows a symptom of cardiovascular disease.

8. A vaccine against cardiovascular disease comprising a therapeutically effective quantity of an immunogenically effective  
15 portion of heat-killed *Porphyromonas gingivalis*.

9. The vaccine of claim 8, wherein said immunogenically effective portion of heat-killed *Porphyromonas gingivalis* is heat-killed whole cells.

20 10. The vaccine of claim 8, said vaccine being effective in preventing or treating atheroma formation.

11. The vaccine of claim 8, said vaccine being effective in  
25 preventing or treating atherosclerosis.

12. The vaccine of claim 8, said vaccine further comprising a pharmaceutically acceptable carrier.